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Morgan Hill City Council

Project Update

November 3, 2010

CALIFORNIA High-Speed Rail

WHY WE NEED IT

Status quo is not an option

Population Growth

- California's population now: 38 million By 2035: 50 million

We can build…

- New freeways, airport runways and more departure gates to address our expected population growth

or

- 800-mile high-speed train system, powered by 100% renewable electricity generated by clean wind and solar energy

CALIFORNIA High-Speed Rail

WHY WE NEED IT

Jobs

- 600,000 full-time, one-year, construction-related job-equivalents
- 5,000 permanent operations and maintenance jobs
- 450,000 economy-wide jobs by 2035

Mobility

- "Economic power is how fast you move people and goods around the state." Gov. Arnold Schwarzenegger, January 15, 2008.

Environment

- Reduced greenhouse gases
- AB 32: California's 2006 landmark legislation to reduce greenhouse gas emissions 25% by 2020

CALIFORNIA High-Speed Rail

MOMENTUM

In 2008 Californians passed Proposition 1A

- $9 billion bond measure – first state to pass funding in the nation

The Federal Government supports helping fund the system through the American Recovery & Reinvestment Act

- Federal grant awarded in January 2010, $1.85 billion specifically for high-speed rail
- Largest award for high-speed train funding received by any state

Private sector interest

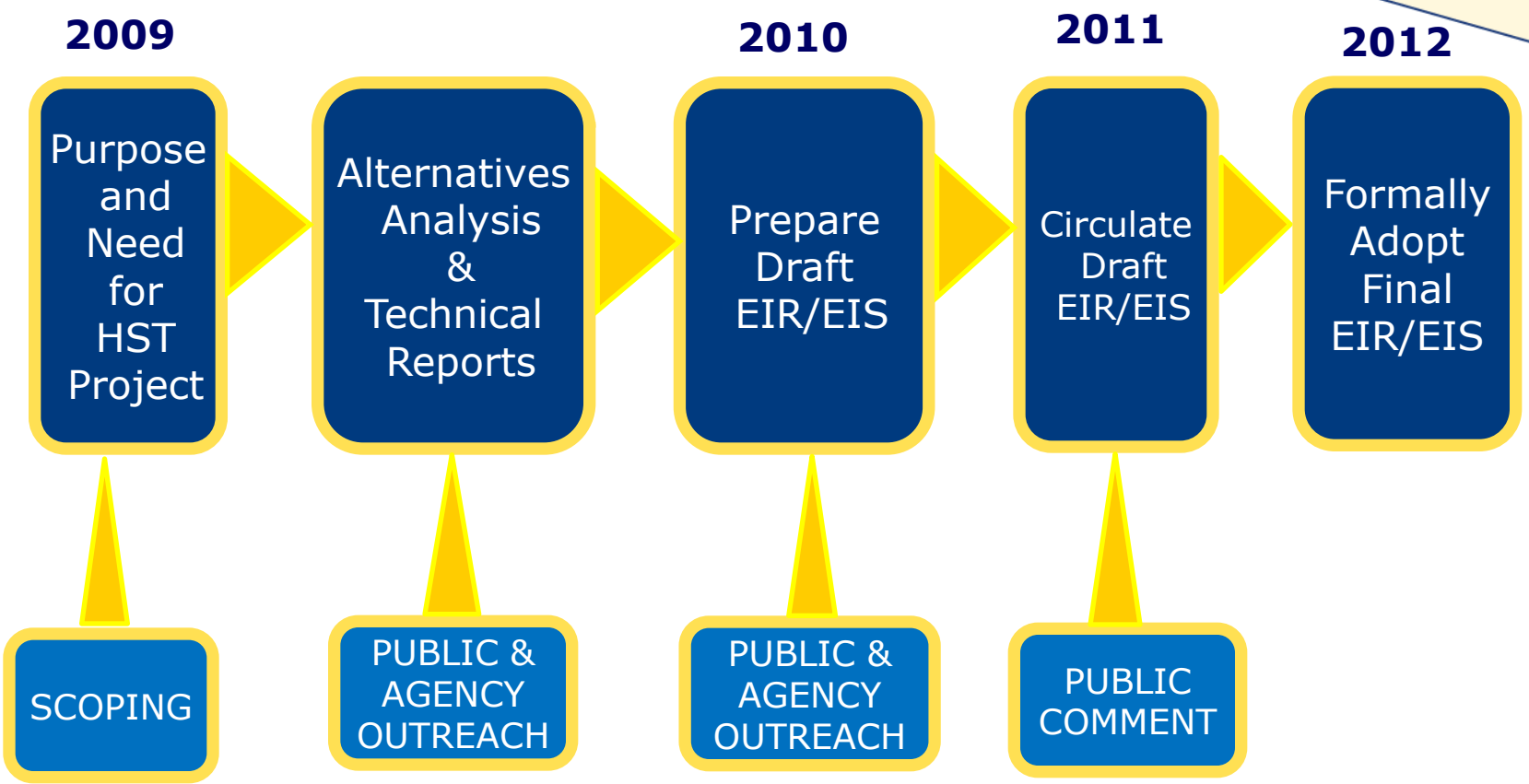
- Seeking $10-12B through public-private partnerships (P3)
- Request for Expressions of Interest issued spring 2008
- Next: solicit preliminary comments on planned RFQ process in late 2010

International interest

- MOUs to share expertise with China, France, Germany, Italy, Japan, Korea, Spain, Belgium and more.

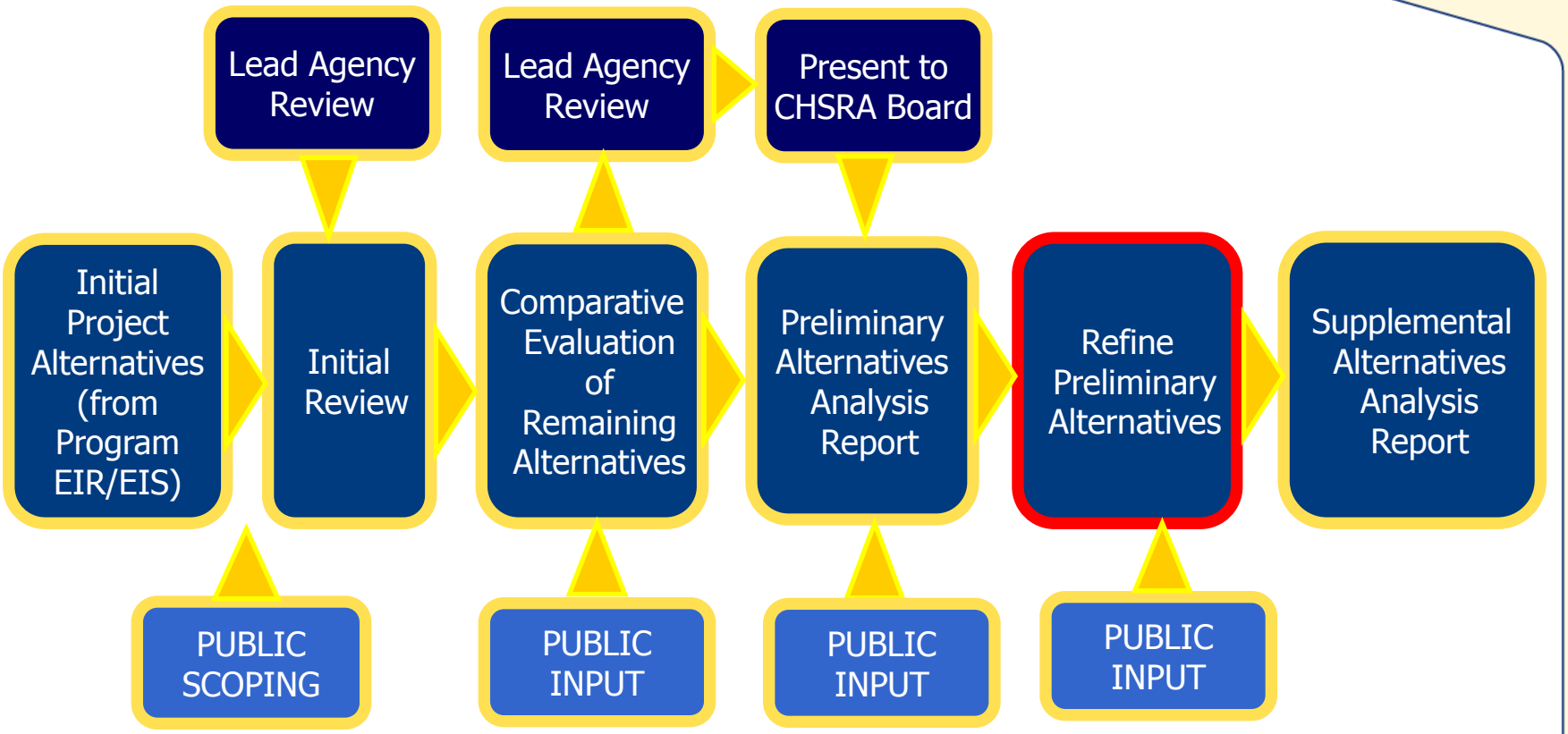
CALIFORNIA High-Speed Rail

ENVIRONMENTAL REVIEW SCHEDULE



CALIFORNIA High-Speed Rail

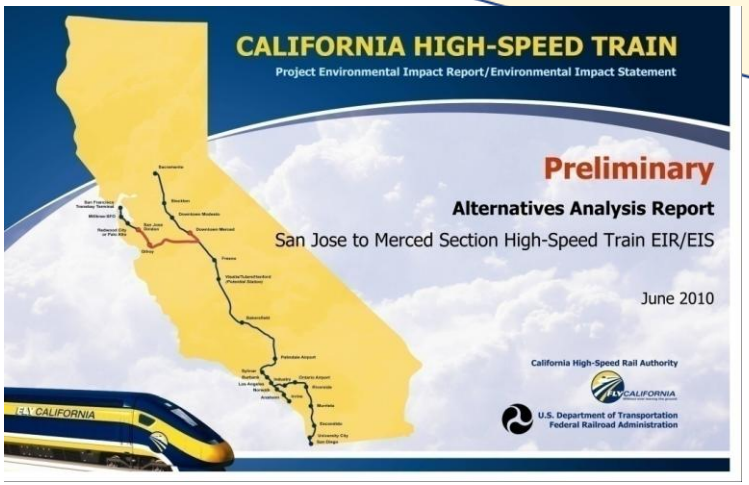
ALTERNATIVES ANALYSIS PROCESS



CALIFORNIA High-Speed Rail

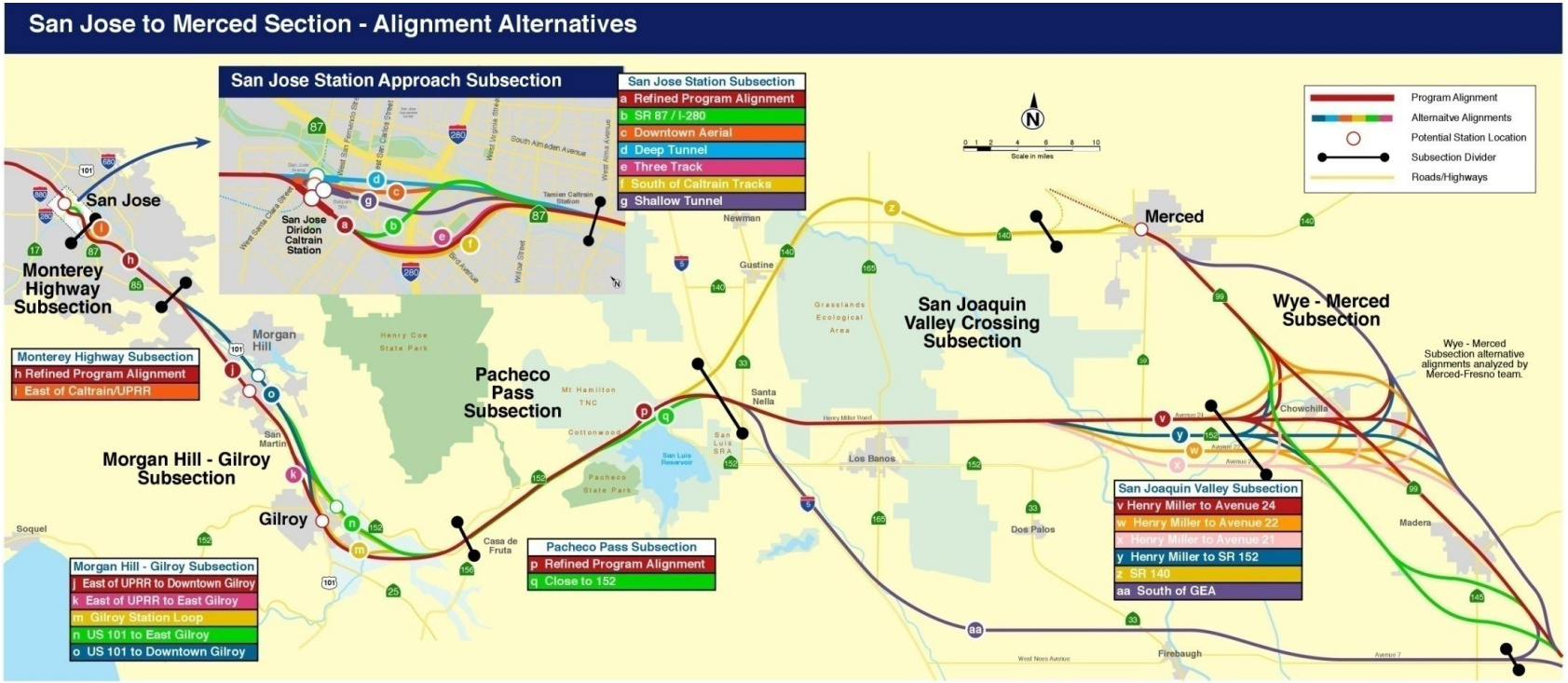
PRELIMINARY ALTERNATIVES ANALYSIS

- Preliminary Alternatives Analysis posted *at* www.cahighspeedrail.ca.gov
- Evaluated alignment & stations from scoping (Spring 2009 – Fall 2009)



- Initial presentation to Board December 3, 2009
- Preliminary AA includes input from Fall 2009-Spring 2010
- Technical Studies – e.g., tunnel options in San Jose
- Extensive agency & public outreach

SUB-SECTIONS FOR EVALUATION



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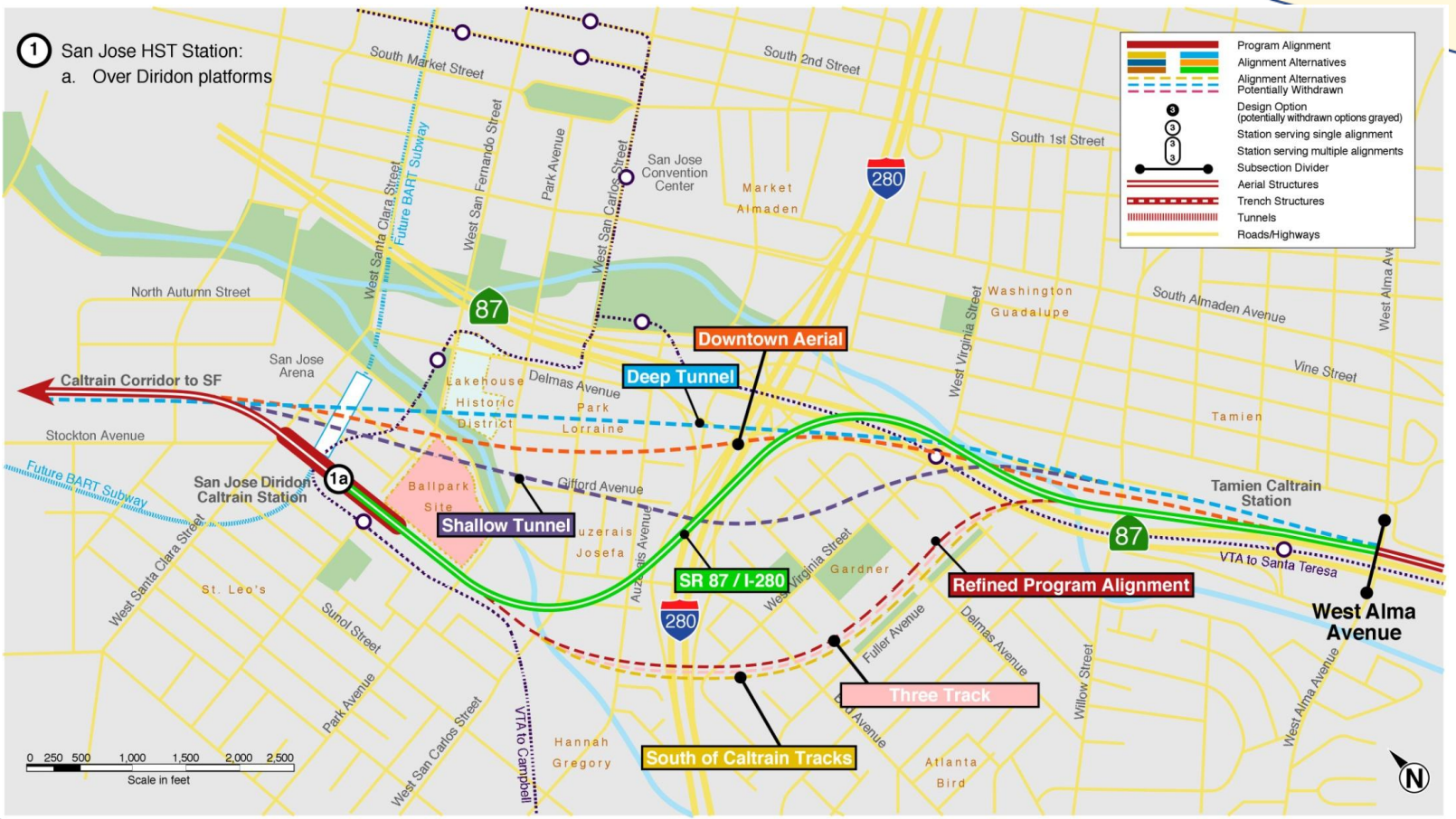
DOWNTOWN SAN JOSE SUB-SECTION



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I-280/SR-87 ALIGNMENT SIMULATION

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MONTEREY HIGHWAY SUB-SECTION

Monterey Highway – Existing

Monterey Highway – Proposed

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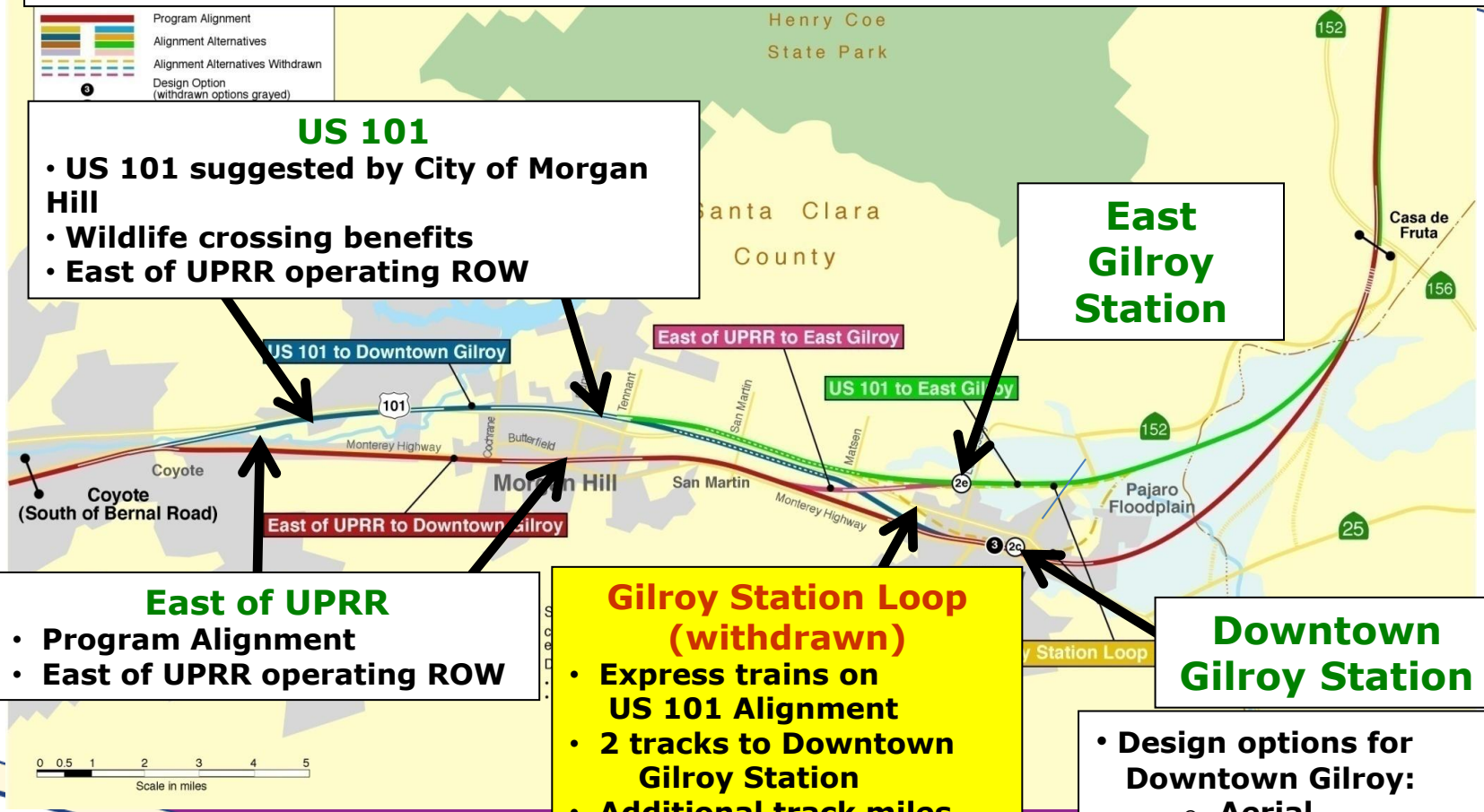
MORGAN HILL – GILROY SUB-SECTION

COMBINATIONS OF TWO ALIGNMENTS AND TWO STATION LOCATIONS



US 101

- US 101 suggested by City of Morgan Hill
- Wildlife crossing benefits
- East of UPRR operating ROW

East Gilroy Station

East of UPRR

- Program Alignment
- East of UPRR operating ROW

Gilroy Station Loop (withdrawn)

- Express trains on US 101 Alignment
- 2 tracks to Downtown Gilroy Station
- Additional track miles, impacts & costs

Downtown Gilroy Station

- Design options for Downtown Gilroy:
  - Aerial
  - Trench – Cost 1.3 times Base Case

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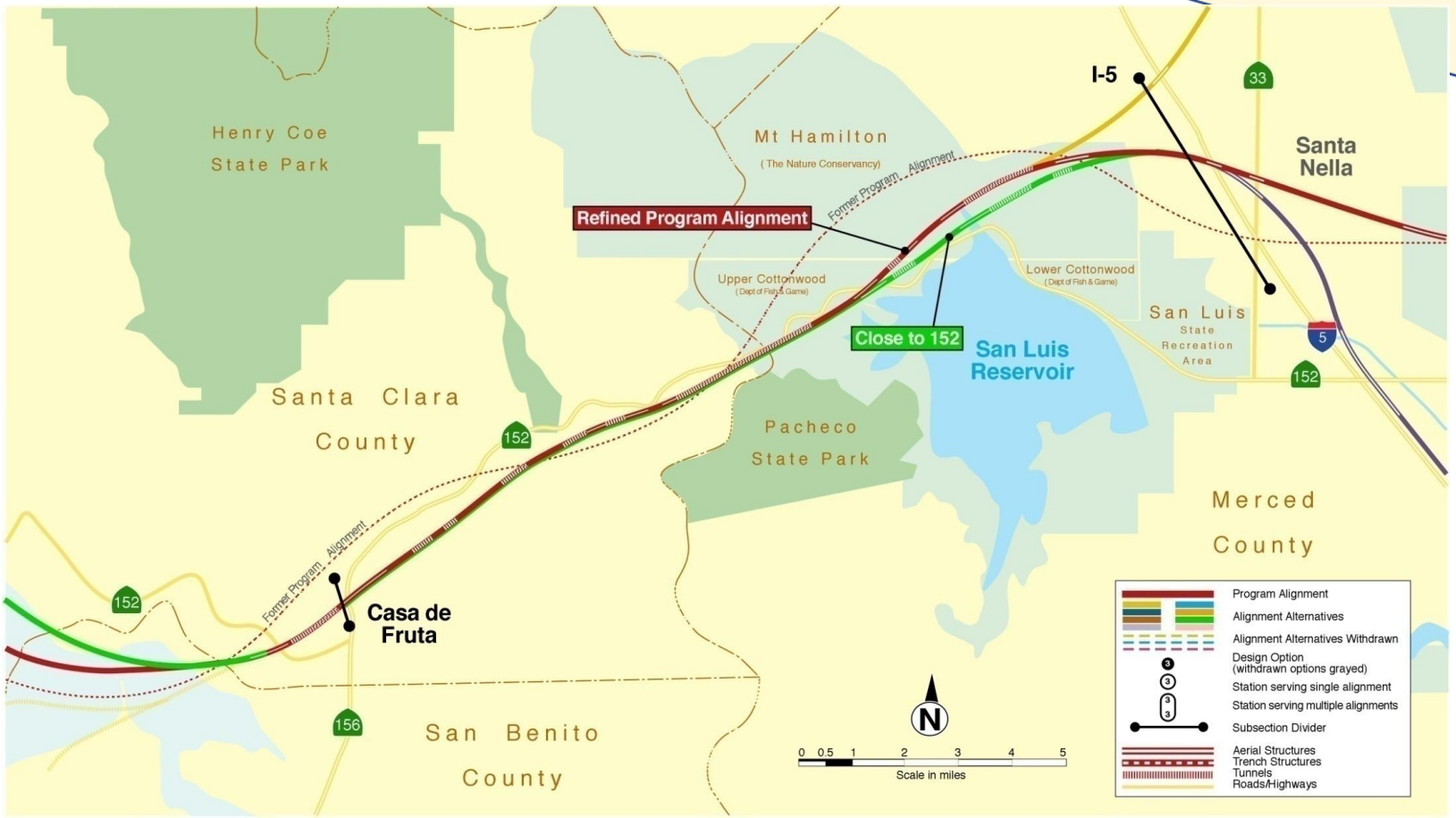
PACHECO PASS SUB-SECTION



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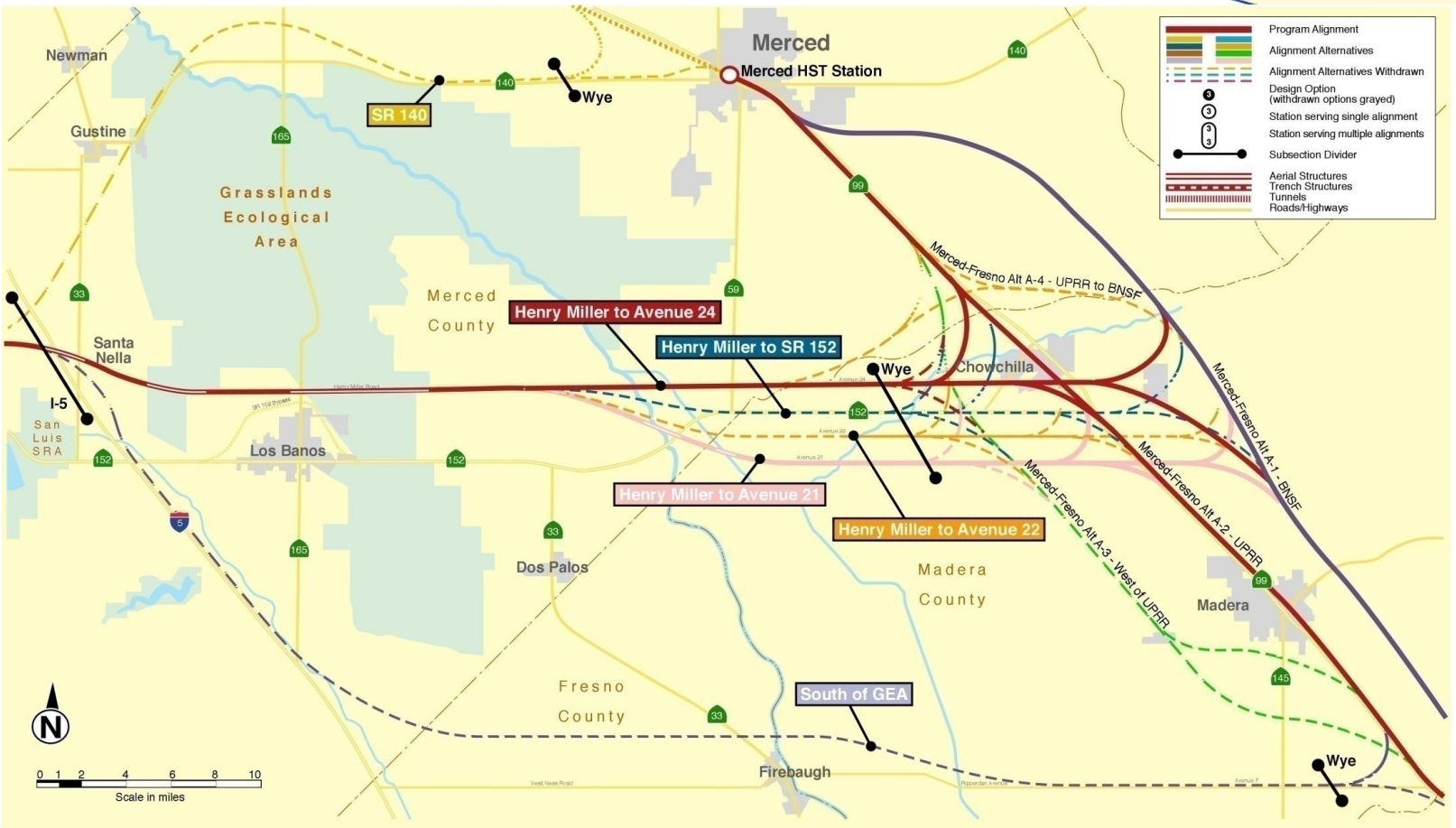
SAN JOAQUIN VALLEY CROSSING SUB-SECTION



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ALIGNMENTS CARRIED FORWARD INTO DRAFT EIR/EIS

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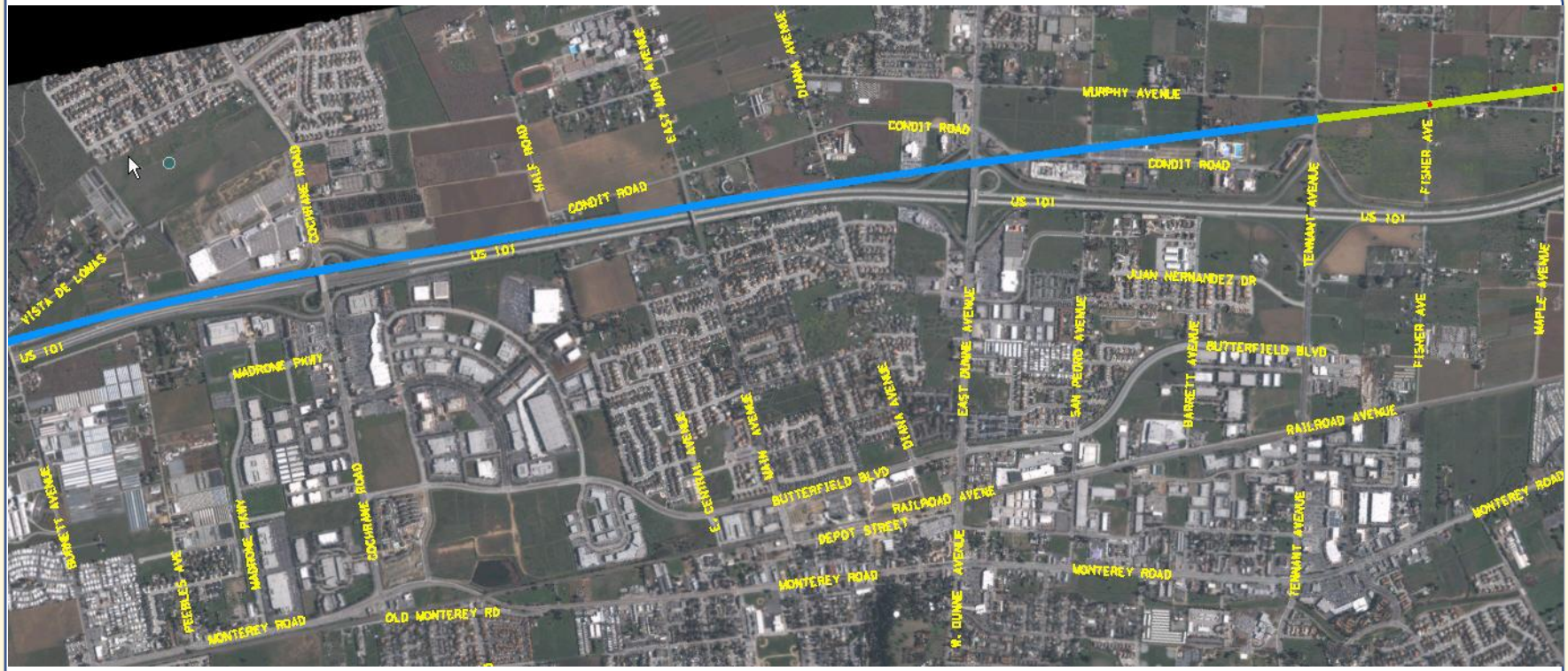
MORGAN HILL US 101 ALIGNMENT CONCEPTUAL PLAN



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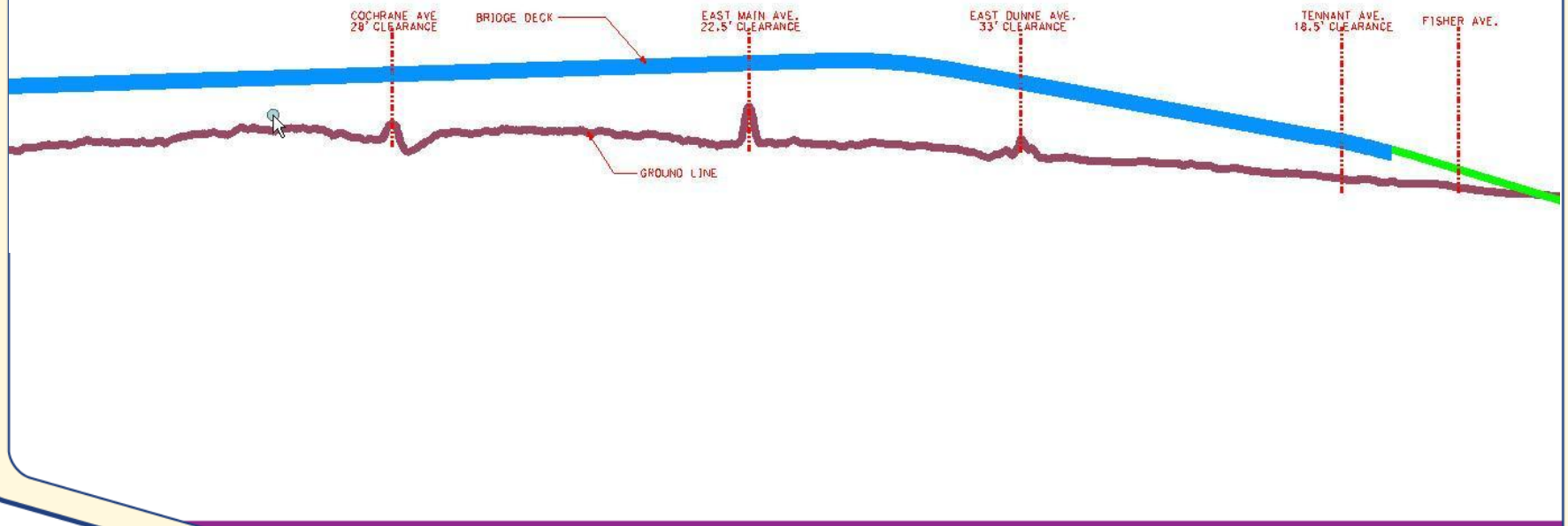
MORGAN HILL US 101 ALIGNMENT CONCEPTUAL PROFILE



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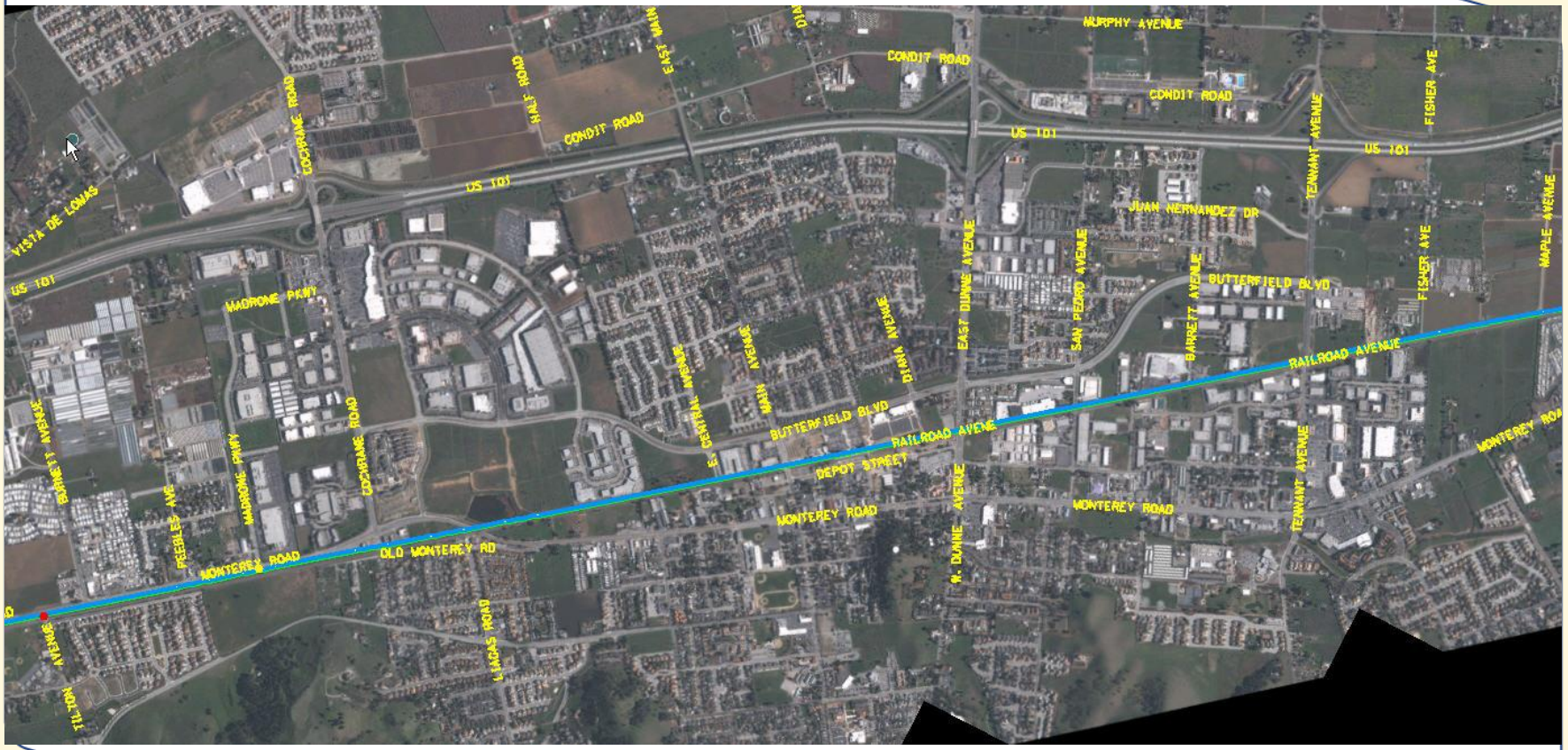
MORGAN HILL UPRR TO DOWNTOWN GILROY ALIGNMENT CONCEPTUAL PLAN



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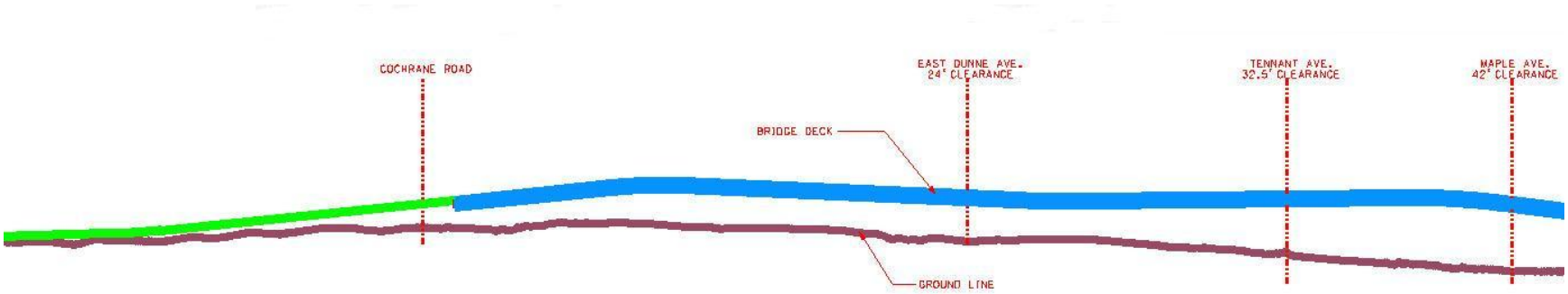
MORGAN HILL UPRR TO DOWNTOWN GILROY ALIGNMENT CONCEPTUAL PROFILE



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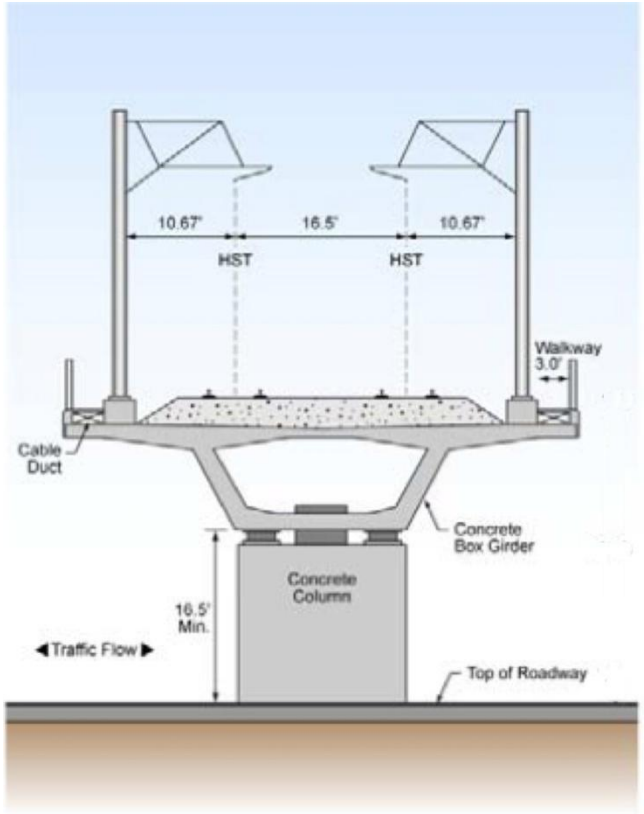
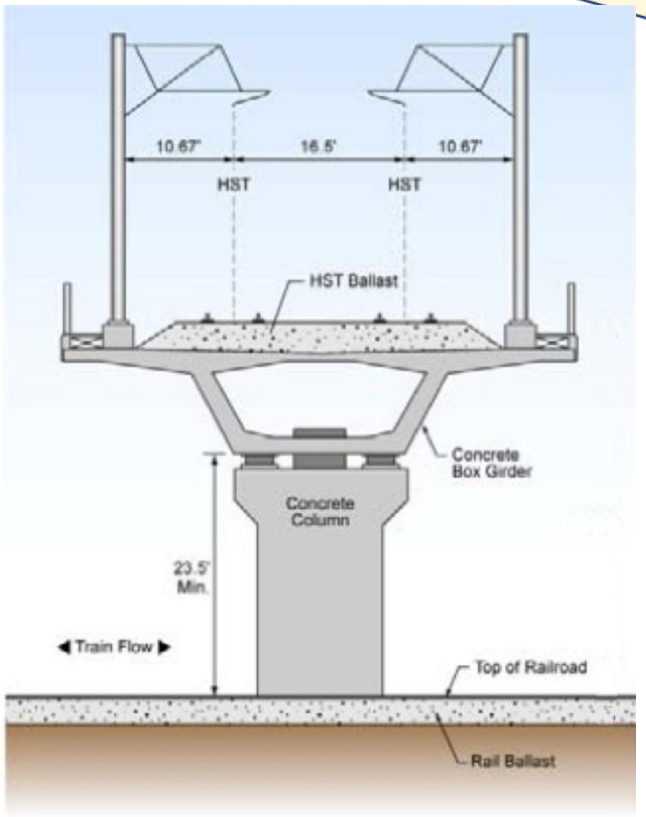
REPRESENTATIVE CROSS-SECTIONS



(a) HST Crossing Roadway/Highway



(b) HST Over Railroad

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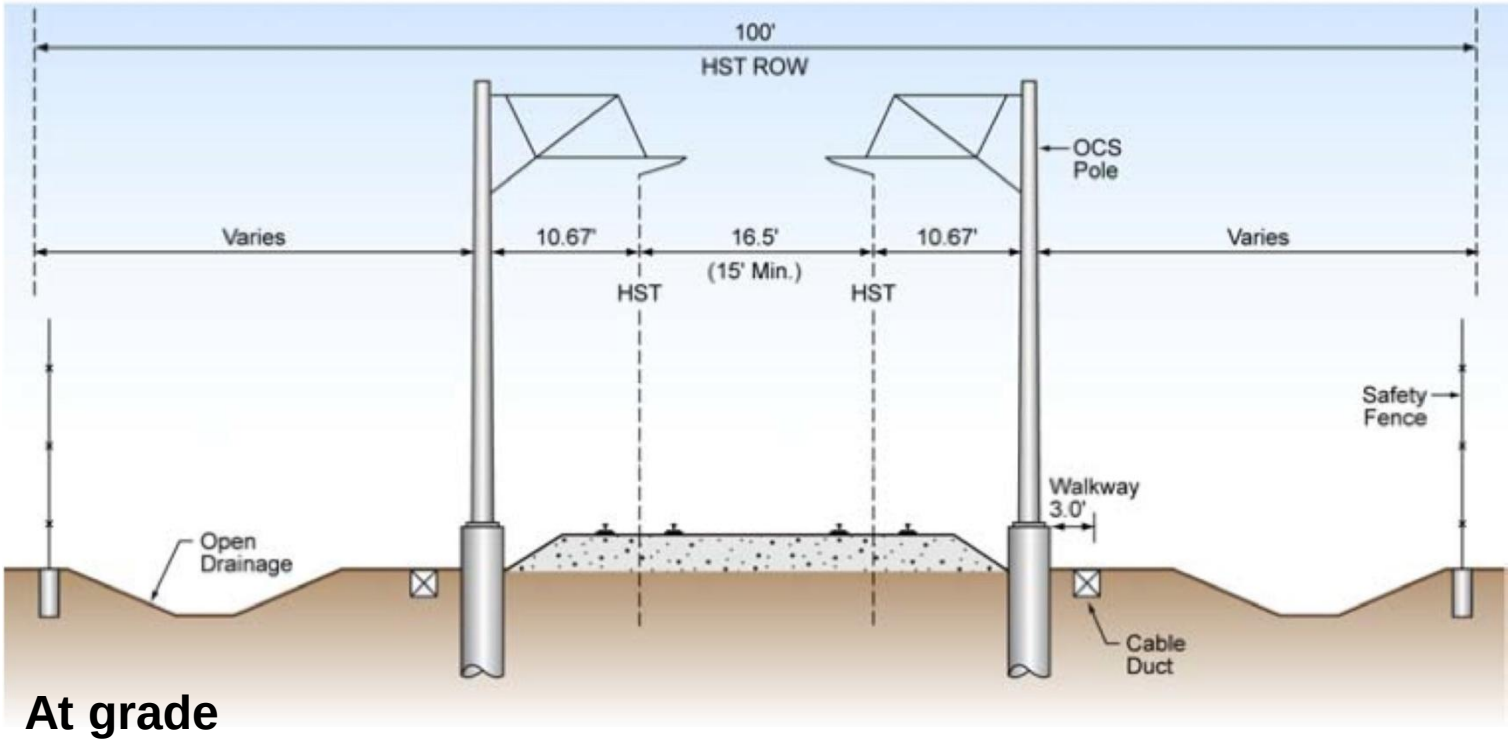
REPRESENTATIVE CROSS-SECTIONS



At grade

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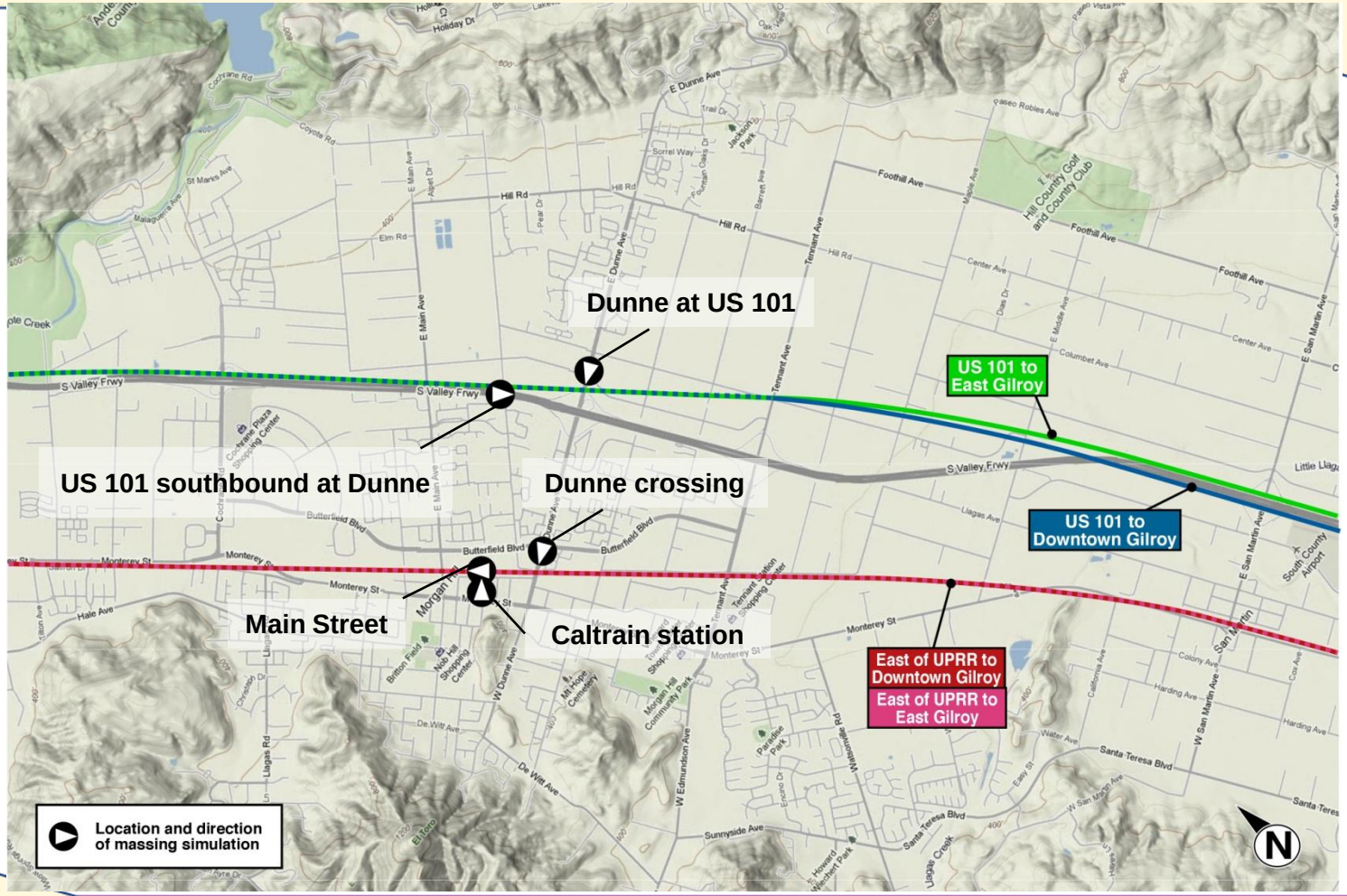
MORGAN HILL ALIGNMENTS: LOCATION OF VISUAL SIMULATIONS



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MORGAN HILL VISUALIZATIONS

IN PROGRESS: Dunne at Highway 101

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MORGAN HILL VISUALIZATIONS

IN PROGRESS: Dunne Crossing

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MORGAN HILL VISUALIZATIONS

IN PROGRESS: Morgan Hill Caltrain Station

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MORGAN HILL VISUALIZATIONS

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MORGAN HILL VISUALIZATIONS

IN PROGRESS: 101 southbound at Dunne

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DOWNTOWN GILROY – 6TH STREET

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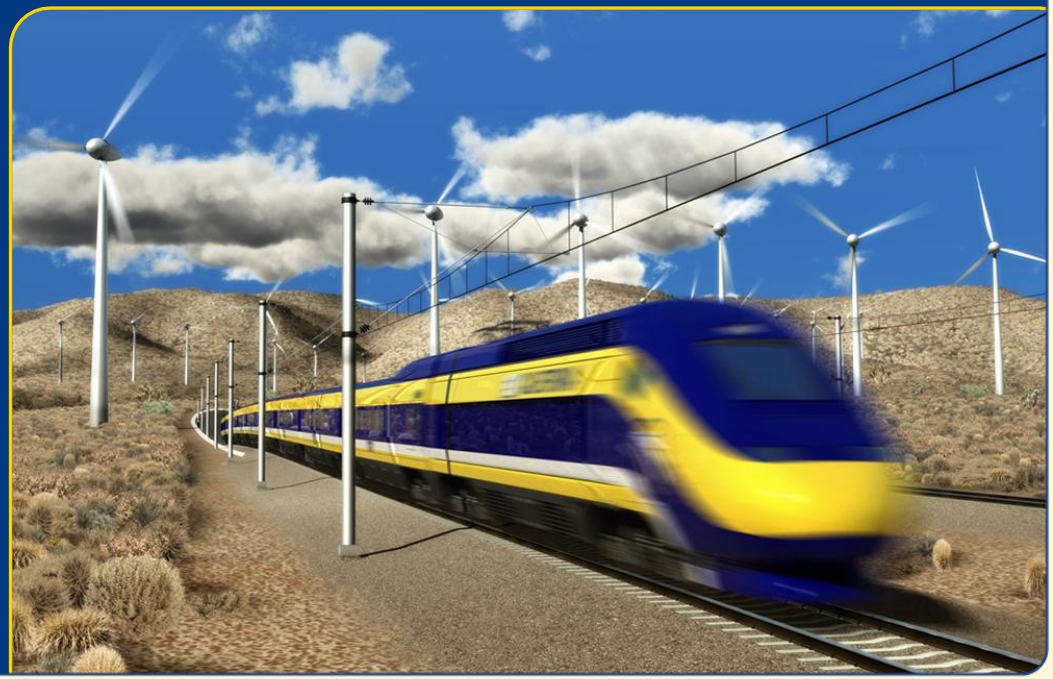
SOUND AND CALIFORNIA'S HIGH-SPEED TRAINS



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SOUND AND CALIFORNIA'S HIGH-SPEED TRAINS

- We understand that sound is a key concern.
- The Federal Railroad Administration has rigorous procedures to measure sound that the Authority will follow.
- The Authority will work with the public and partner agencies to consider ways to mitigate significant sound impacts.

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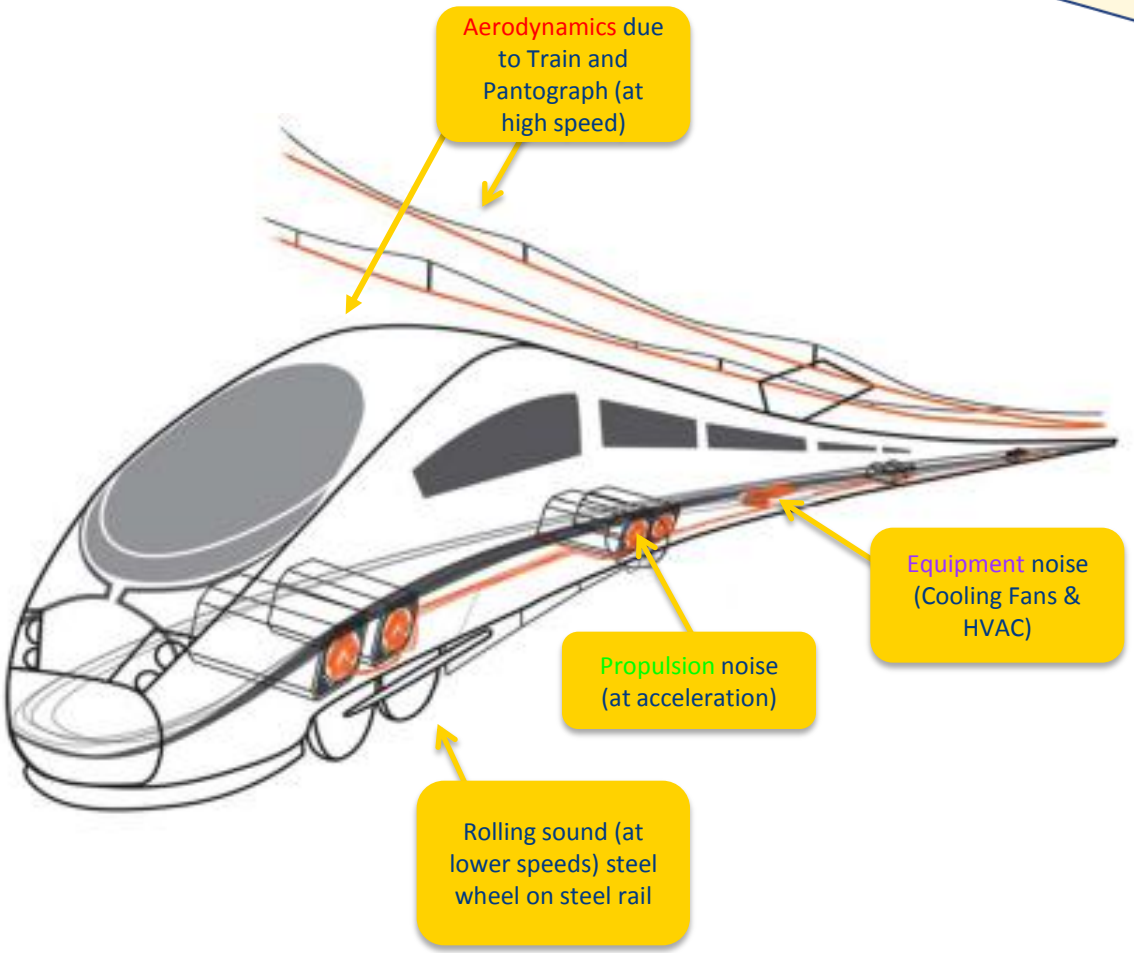
HIGH-SPEED TRAINS CREATE FOUR KINDS OF SOUND

Rolling – sound from the wheels as trains move along the tracks.

Propulsion – sound from motors and gears that make the train move.

Equipment – sound from cooling fans and air conditioners.

Aerodynamics – sound from the flow of air moving past the train at high speed.



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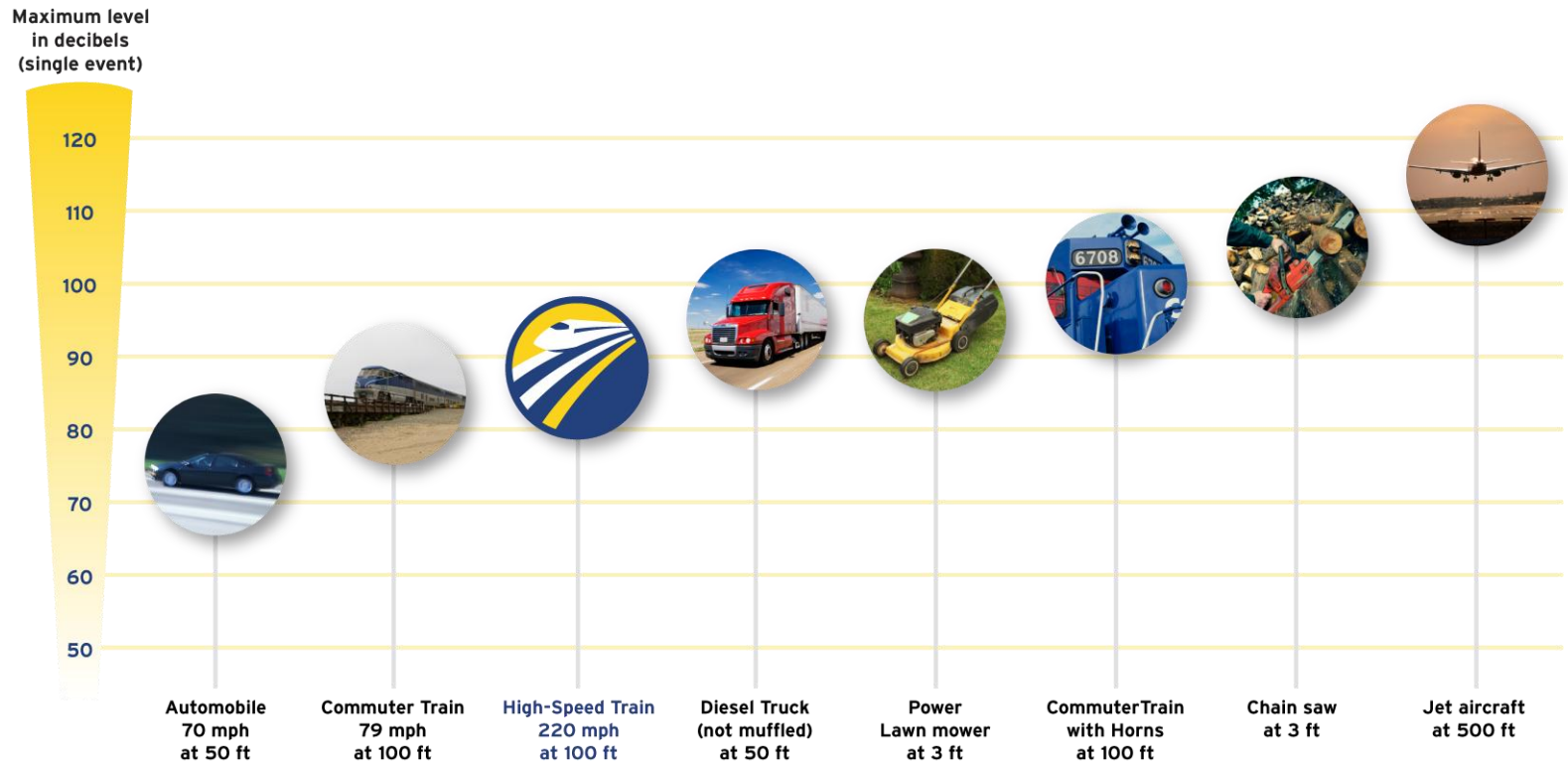
HOW DOES THE SOUND FROM HIGH-SPEED TRAINS MEASURE UP?



CALIFORNIA High-Speed Rail

THOROUGH ENVIRONMENTAL ANALYSIS

The review will look at two key measurements:

- ***One-Hour Equivalent Sound Level***, which measures the moment-to-moment fluctuations in sound **over a single hour** – taking into account both the number of trains and the time they take to pass by – the best measure for assessing the impacts on offices, schools and libraries.

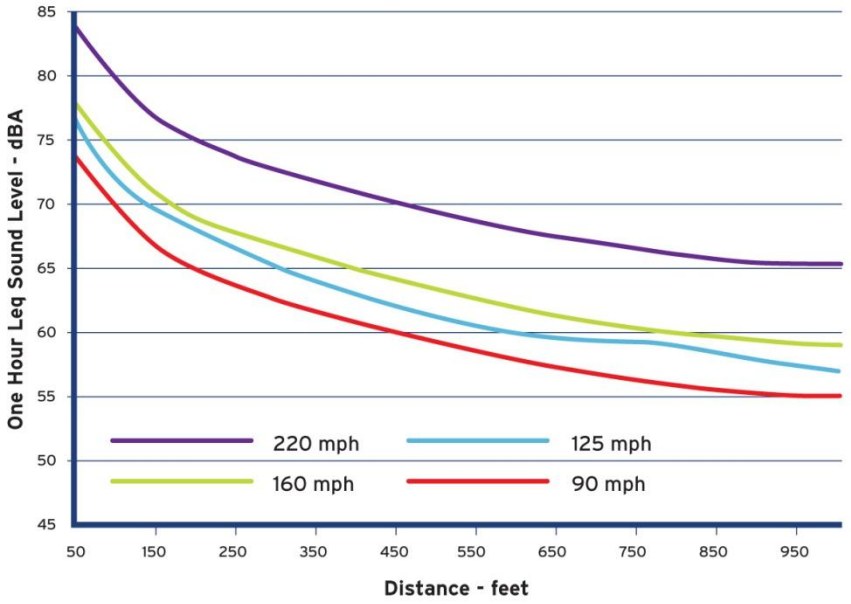
- ***Day-Night Sound Level*** looks at sound fluctuations **over a full 24 hours**, taking into account the heightened sensitivity in residential areas to sounds made late at night.

HERE'S WHAT YOU CAN EXPECT

For offices, schools and libraries:

- In urban and highly developed suburban areas, **a high-speed train traveling 125 mph** will produce an hourly equivalent sound level of about **73 decibels from a distance of 100 feet** – less than a commuter train with a blowing horn.

One-Hour Noise Levels



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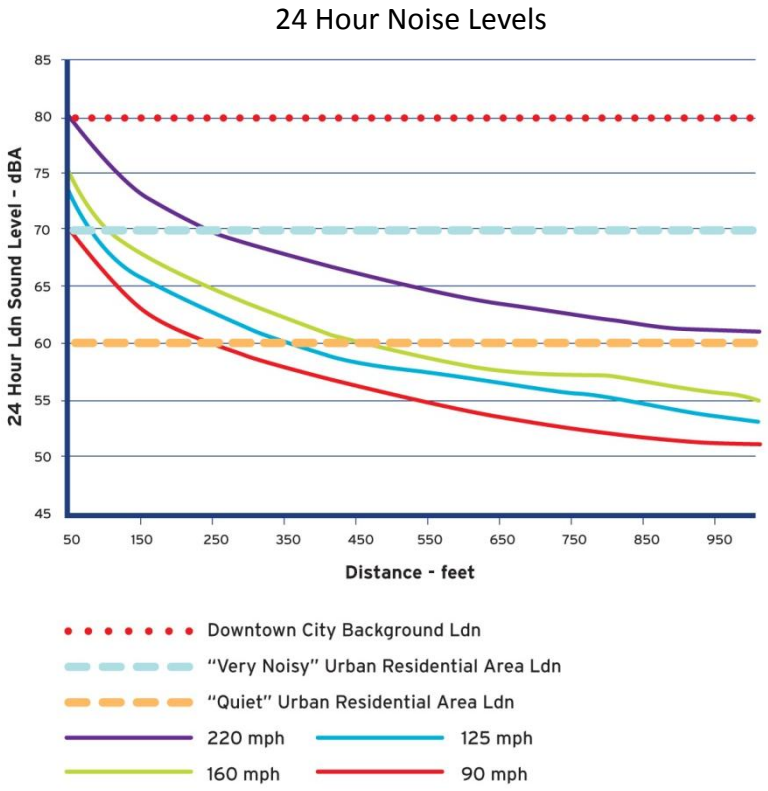
HERE'S WHAT YOU CAN EXPECT

For residential neighborhoods:

- In downtown city settings, high-speed trains – even at top speed – will be **within the existing noise levels** from traffic and other sources.
- In noisy urban residential areas, high-speed trains – even at top speed – will be **within existing noise levels for everyone except listeners within 250 feet of the tracks.**
- In quiet residential areas, high-speed trains – depending upon speed – **could affect noise levels for listeners within 1,000 feet** of the tracks.



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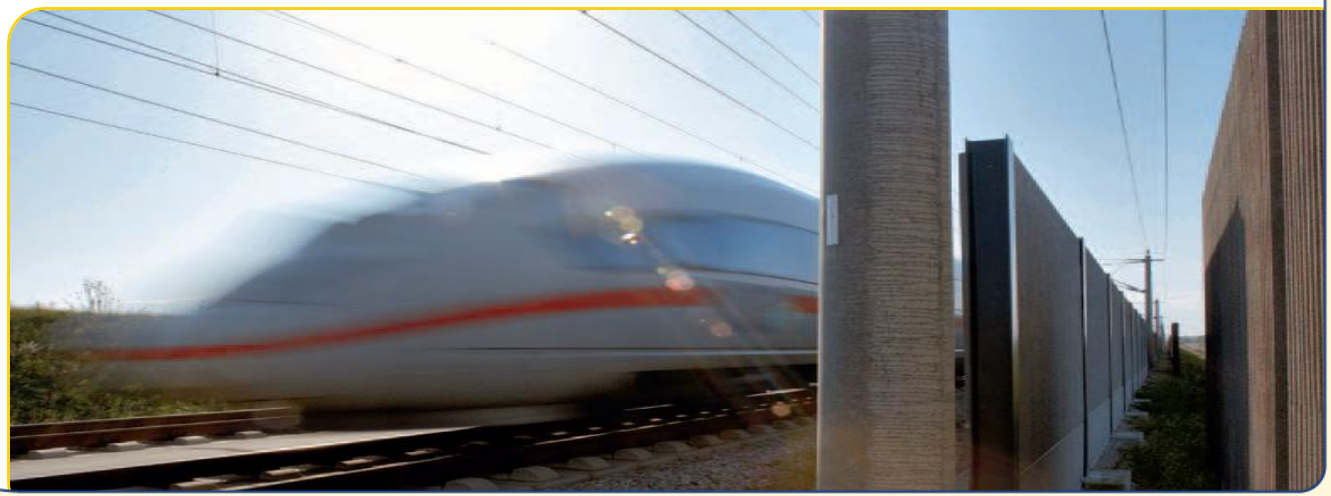
FAST TRAINS MAKE FOR SHORTER SOUNDS

A train moving at 220 mph – the top speed of California's high-speed trains – will be heard for about **four seconds**

By comparison….

A 50-car freight train traveling at 30 mph can be heard for **one minute**



CALIFORNIA High-Speed Rail

COMMITMENT TO SOUND MITIGATION

Operations

- In major urban areas (Bay Area, Los Angeles and San Diego) high-speed trains will mostly run at speeds of **125 mph or less.**
- High-speed trains won't have scheduled passenger service between midnight and 5 a.m.
- Grade-separated system will **eliminate the need for blaring horns.**

Technology

- Newer high-speed trains **quieter than earlier models** and conventional trains
- Electrically powered, **no noisy diesel engines**

Rhine River Viaduct, Germany

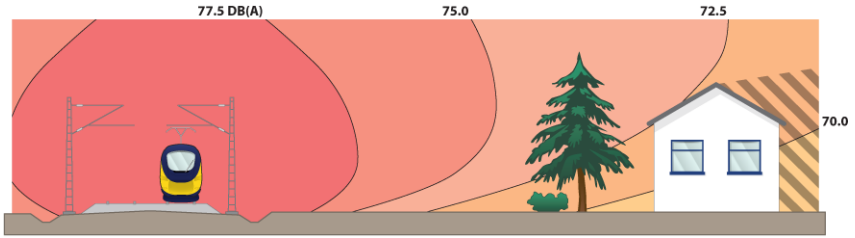
SCNF High-Speed Train System, France

CALIFORNIA High-Speed Rail

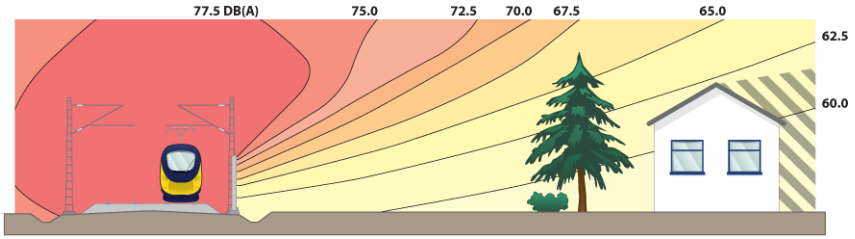
COMMITMENT TO SOUND MITIGATION

Engineering and design will make a big difference

- Sound engineers and train builders have over 40 years experience – and good mitigation measures are working around the world.
- For a train traveling less than 160 mph, a six to 12-foot sound barrier will **reduce noise by five to nine decibels** (the human ear perceives a 10-decibel reduction as cutting the sound in half).
- The sound from a high-speed train operating on an aerial structure could be **one or two decibels higher** than at ground level.
- The sound from a high-speed train operating in an open trench could be **five to seven decibels lower** than at ground level.



Noise levels without sound barrier



Noise levels with sound barrier

CALIFORNIA High-Speed Rail

GET INFORMED AND BE HEARD

- The California High-Speed Rail Authority has issued a detailed fact sheet and posted it on our website so that people concerned about these issues can understand them and participate in the process.
- Your feedback will help make sure California's high-speed train project becomes a good neighbor to the communities it serves.

www.cahighspeedrail.ca.gov

CALIFORNIA High-Speed Rail

NEXT STEPS

- Public & Agency Meetings on Alternatives Analysis
- Supplemental AA – December 2010
- 15% design – March 2011
- Draft EIR/EIS - August 2011
- Final EIR/EIS - February 2012
- Record of Decision – May 2012

QUESTIONS/COMMENTS

Contact Us:

- **Website:** http://www.cahighspeedrail.ca.gov
- **Phone:** 1-800-881-5799

Comments:

- **Email:** san.jose_merced@hsr.ca.gov
- **Postal Mail:**
  California High-Speed Rail Authority

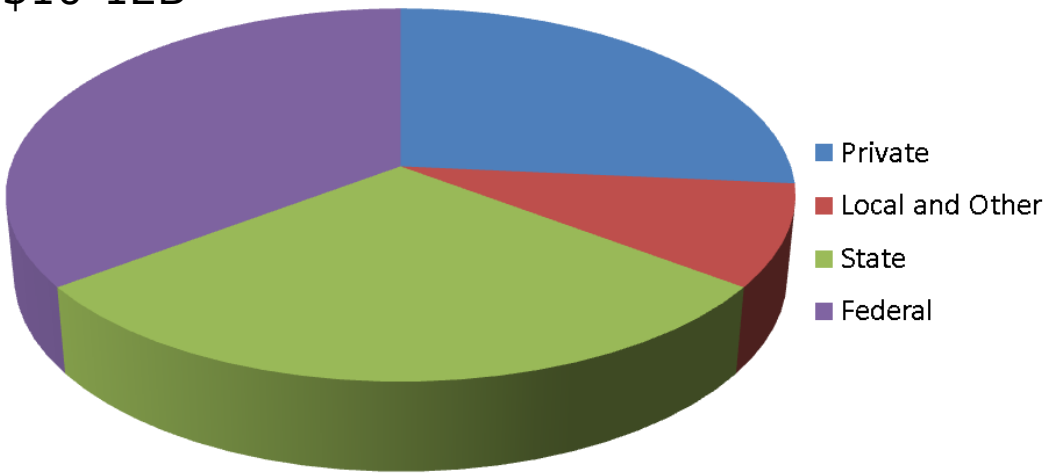
  San Jose to Merced Section
  925 L Street, Suite 1425
  Sacramento, CA 95814

FUNDING

Projected overall construction cost: $42.6 billion

(Anticipated funding sources)

- California Funding: $9B
- Federal Funding: $17-19B
- Local Funding: $4-5B
- Private Investment: $10-12B



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EXAMPLE OF A COMPLETED VISUAL SIMULATION

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